APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,626	08/22/2001	John M. Baron	10010923	8671

22879 7590 11/29/2005		EXAMINER
HEWLETT PACKARD COMPANY		MISLEH, JUSTIN P
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INTELLECTUAL PROPERTY ADMINISTRATION	ART UNIT — PAPER NUMBER
FORT COLLINS, CO 80527-2400	2612

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="2">

Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/934,626</td><td>BARON ET AL.</td></tr>
<tr><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td>Justin P. Misleh</td><td>2612</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *July 26, 2005+*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 4, 6 - 15, 17, and 19 - 22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 4, 6 - 15, 17, and 19 - 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 7-05)   Office Action Summary   Part of Paper No./Mail Date 112205

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on July 26, 2005 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to Claims 1, 9, and 13 have been considered but are

moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1, 2, 4, 7 – 10, 12 – 15, 17, 20, and 21** are rejected under 35 U.S.C. 102(e) as

being anticipated by Pavley.

5.   For **Claim 1**, Pavley disclose, as shown in figures 1 and 4 – 7 and as stated in column 5

(line 25) – column 6 (line 42), an image capturing device (figure 1), comprising:

a processor (110);

at least one interface (348) communicating with said processor (110) and capable of

transferring images out of said image capturing device (see figure 6 and column 2, lines 64 – 67,

column 5, lines 46 – 60, and column 6, lines 10 – 15);

a memory (354) communicating with said processor (110) and capable of storing a

plurality of records ("image files"), with a record including image data (810) and image status

data (825; see figures 4 and 5) indicating whether a copy of the image has been transferred out of

the device ("file attributes"; see column 5, lines 30 – 45);

wherein said processor (110) determines whether said memory (354) includes any

archived images as indicated by said status data ("file attributes") and replaces one or more

archived images in said memory (354) with a newly captured image when insufficient free space

exists in said memory (354) to store said newly captured image (Pavley explicitly recites this

feature in column 5, line 67 – column 6, line 10); and

wherein said processor (110) disables image capture if said memory is full and said

memory does not contain any archived images (see explanation below).

In column 5 (lines 39 – 41), Pavley indicates that only image files that have been

archived ("undergone a backup process") can be safely deleted from the local storage system.

Furthermore, in column 5 (line 67) – column 6 (line 7), Pavley also teaches that when an attempt

to take an image results in an indication that more storage space is needed, archived images may

be deleted to reclaim enough storage space to take an image. Finally, in column 5 (lines 42 – 45)

and in column 6 (lines 27 – 33), Pavley indicates that an image file is capable of including an archive file attribute but does not necessarily include an archive file attribute and that an archiving operation may be set up and selected in the camera but not necessarily set up and selected.

Hence, Pavley does not have a specific requirement to archive image files; albeit, image files which have not been archived cannot be deleted. Furthermore, Pavley specifically indicated that images are only taken when there is enough storage space to store a newly captured image. Therefore, Pavley leaves no choice but to disable image capture if the local storage system indicates that more storage space is needed to store the newly formed image file when there are no image files that can be safely deleted from the local storage system (e.g. archived images).

6.   As for **Claim 2**, Pavley discloses, as shown figure 6 and columns 2 (lines 64 – 67), 5 (lines 46 – 60), and 6 (lines 10 – 15), wherein said at least one interface (348) is a communication interface capable of transmitting a stored image to an external device (1100/1102).

7.   As for **Claim 4**, Pavley discloses, as shown figure 6 and columns 2 (lines 64 – 67), 5 (lines 46 – 60), and 6 (lines 10 – 15), wherein said at least one interface (348) is a removable memory medium interface capable of transmitting a stored image (stored in DRAM 346) to a removable memory medium (354).

8.   As for **Claim 7**, Pavley discloses, as shown in figures 1, 2A, and 2B, wherein said memory (354) is an internal memory. In other words, figures 2A and 2B show that the removable memory medium (354) is completely housed within the camera; hence, it is an

internal memory. The claim language does not specify whether the internal memory is a permanent or removable internal memory.

9.   As for **Claim 8**, Pavley discloses, as stated in column 3 (lines 7 – 11), wherein said memory (354) comprises a removable memory medium (354).

10.   For **Claim 9**, Pavley discloses, as shown in figures 4 – 7 and as stated in column 5 (line 25) – column 6 (line 42), a memory management method for a memory ("local storage space") of an image capturing device ("digital camera 110"), comprising the steps of:

transferring a copy of an image out of said memory ("local storage space") during an image archiving operation (column 6, lines 10 – 17);

marking said image in said memory as an archived image (see column 5, lines 39 – 41); and

automatically replacing an archived image with a newly captured image if said memory lacks sufficient free space to store said newly captured image (see column 5, line 61 – column 6, line 9)

automatically disabling image capture if said memory is full and said memory does not contain any archived images (see explanation below).

In column 5 (lines 39 – 41), Pavley indicates that only image files that have been archived ("undergone a backup process") can be safely deleted from the local storage system. Furthermore, in column 5 (line 67) – column 6 (line 7), Pavley also teaches that when an attempt to take an image results in an indication that more storage space is needed, archived images may be deleted to reclaim enough storage space to take an image. Finally, in column 5 (lines 42 – 45) and in column 6 (lines 27 – 33), Pavley indicates that an image file is capable of including an

archive file attribute but does not necessarily include an archive file attribute and that an

archiving operation may be set up and selected in the camera but not necessarily set up and

selected.

Hence, Pavley does not have a specific requirement to archive image files; albeit, image

files which have not been archived cannot be deleted. Furthermore, Pavley specifically indicated

that images are only taken when there is enough storage space to store a newly captured image.

Therefore, Pavley leaves no choice but to disable image capture if the local storage system

indicates that more storage space is needed to store the newly formed image file when there are

no image files that can be safely deleted from the local storage system (e.g. archived images).

11.   As for **Claim 10**, Pavley discloses, as stated in column 6 (lines 10 – 17), wherein the

transferring step comprises transferring said copy to an external computer device (1100).

12.   As for **Claim 12**, Pavley discloses, as shown in figure 5 and as stated in column 5 (lines

25 – 45), wherein the marking step comprises changing a status variable in an associated status

storage cell (file attribute designations of file tags) to an archived state.

13.   For **Claim 13**, Pavley discloses, as shown in figures 4 – 7 and as stated in column 5 (line

25) – column 6 (line 42), a memory management method for a memory ("local storage space")

of an image capturing device ("digital camera 110"), comprising the steps of:

determining whether said memory is capable of storing an additional image (see column

5, line 67 – column 6, line 10);

storing a captured image in said memory if sufficient free space exists in said memory

(again see column 5, line 67 – column 6, line 10);

determining if said memory contains at least one archived image, if said memory is not

capable of storing said captured image (once again see column 5, line 67 – column 6, line 10),

and

replacing said at least one archived image with said captured image if said memory is not

capable of storing said captured image and if said memory contains said at least one archived

image (finally again see column 5, line 67 – column 6, line 10),

wherein an image capture is disabled if said memory is full and said memory does not

contain any archived images (see explanation below).

In column 5 (lines 39 – 41), Pavley indicates that only image files that have been

archived ("undergone a backup process") can be safely deleted from the local storage system.

Furthermore, in column 5 (line 67) – column 6 (line 7), Pavley also teaches that when an attempt

to take an image results in an indication that more storage space is needed, archived images may

be deleted to reclaim enough storage space to take an image. Finally, in column 5 (lines 42 – 45)

and in column 6 (lines 27 – 33), Pavley indicates that an image file is capable of including an

archive file attribute but does not necessarily include an archive file attribute and that an

archiving operation may be set up and selected in the camera but not necessarily set up and

selected.

Hence, Pavley does not have a specific requirement to archive image files; albeit, image

files which have not been archived cannot be deleted. Furthermore, Pavley specifically indicated

that images are only taken when there is enough storage space to store a newly captured image.

Therefore, Pavley leaves no choice but to disable image capture if the local storage system

indicates that more storage space is needed to store the newly formed image file when there are

no image files that can be safely deleted from the local storage system (e.g. archived images).

14.   As for **Claim 14**, Pavley teaches, as shown in figure 2B and as stated in column 3 (line

59), a shutter button (418). Pavley also teaches, as stated in column 5 (line 67) – column 6 (line

10), when there is an attempt to take an image … the above-recited is performed.

15.   As for **Claim 15**, Pavley teaches, as stated in column 5 (line 67) – column 6 (line 10),

that above-recited method is based upon determining which previously stored image files can be

safely deleted. Therefore, Pavley teaches wherein the method is performed upon completion of

an image capture.

16.   As for **Claim 17**, Pavley teaches, as stated in column 5 (lines 31 – 45), wherein the

archive file attribute is a subset file tags (shown in figures 4 and 5), wherein the file attribute

designations are set or reset using designated bits associated and stored with the image file.

Therefore, Pavley discloses wherein the step of determining additional image storage capability

includes status variables corresponding to each image stored in said memory.

17.   As for **Claim 20**, Pavley teaches, as stated in column 5 (lines 39 – 41), that the archive

files are image files that have undergone a backup procedure and can be safely deleted from local

storage. Furthermore, Pavley teaches, as stated in column 6 (lines 1 – 10), that the archive files

are deleted and replaced with newly captured images that have not yet been archived. Therefore,

Pavley teach changing a status variable of a replaced archived image to a non-archived status.

18.   As for **Claim 21**, Pavley discloses, as stated in column 6 (lines 10 – 17), wherein an

archived image comprise a captured image a copy of which has been transferred to an external

memory connected to said image capture device (The external computer device 1100 is an

external memory device).

Claim Rejections - 35 USC § 103

19.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

20.   **Claims 3, 6, 11, 19, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Pavley.

21.   As for **Claim 3**, while Pavley discloses at least one interface (348) communicating with

said processor (110) and capable of transferring images out of he image capturing device; Pavley

does not disclose wherein said at least one interface is a USB cable interface.

        However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and

advantages of having a USB cable interface to transferring images are well known and expected

in the art. At the time the invention was made, it would have been obvious to one with ordinary

skill in the art to have a USB cable interface for transferring images for the following

advantages: high-speed data transmission, power-supplying capabilities, and convenience.

22.   As for **Claim 6**, Pavley discloses, as stated in column 5 (line 67) – column 6 (line 10),

wherein said processor is capable of replacing one or more archived images in said memory with

a newly captured image when said memory is incapable of storing said newly captured image;

although, Pavley does not specify how the replacing is carried out. More specifically, Pavley

does not teach replacing an oldest image as indicated by a date/time information in a date/time storage cell of a record in the memory.

However, **Official Notice** (See MPEP § 2144.03) is taken that both the concepts and advantages of determining, for purposes of replacement, the oldest image according to stored date/time information associated with a stored image are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to determine, for purposes of replacement, the oldest image according to stored date/time information associated with a stored image for the advantage improving image file inventory control, improving memory management, and reducing processing time.

23.   As for **Claims 11, 19, and 22**, while Pavley discloses wherein the transferring step comprises transferring said copy to an external computer device which functions as an external memory device; Pavley does not disclose wherein the transferring step comprises transferring said copy to an external removable memory medium.

However, **Official Notice** (See MPEP § 2144.03) is taken that both the concepts and advantages of transferring a copy of an image out of an image-capturing device to an external removable memory medium are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to transfer a copy of an image out of an image-capturing device to a external removable memory medium as a means to provide a backup copy of the image on a portable permanent mass storage device with device interoperable capabilities.

Conclusion

24.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The

Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Ngoc Yen Vu can be reached on 571.272.7320. The fax phone number for the

organization where this application or proceeding is assigned is 571.273.3000.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
November 22, 2005

NGOC-YEN VU
PRIMARY EXAMINER